

FIGURE 1(a)

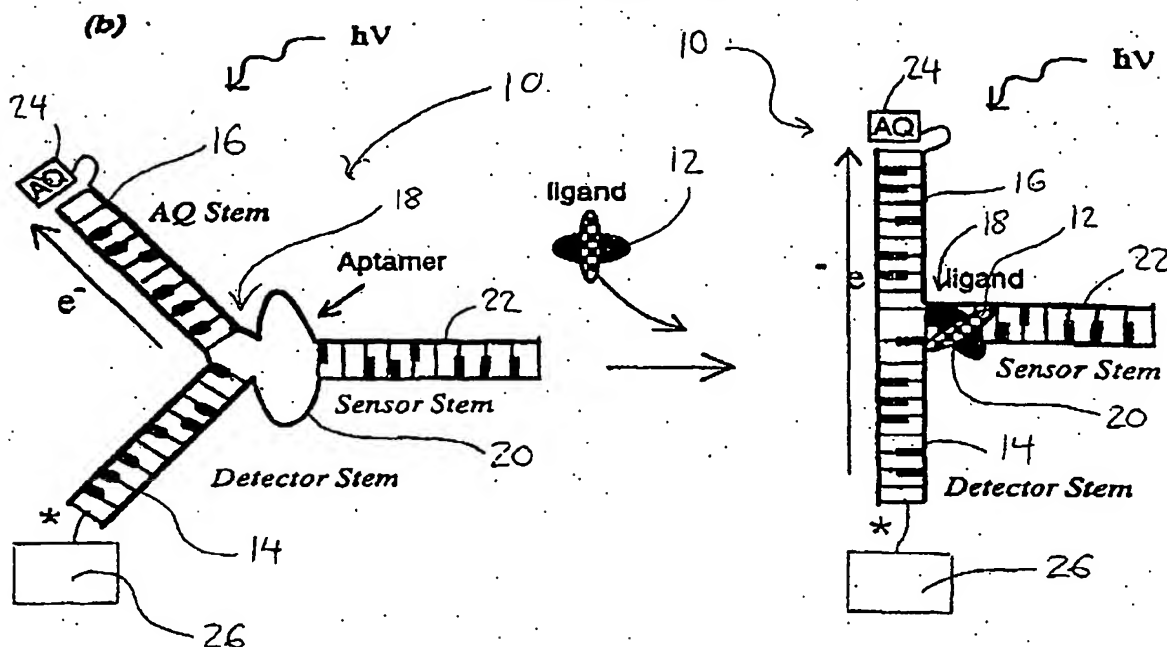


FIGURE 1(b)

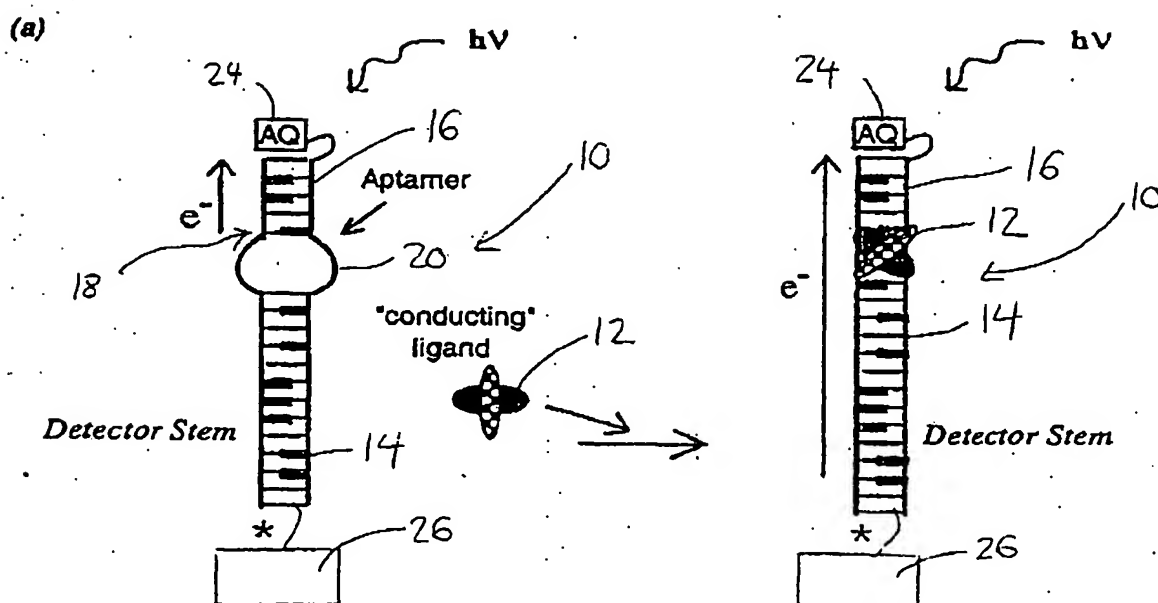


FIGURE 2(a)

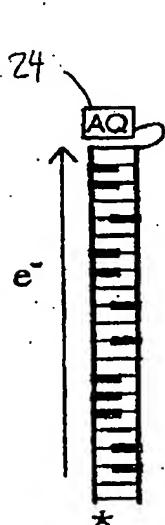


FIGURE 2(b)

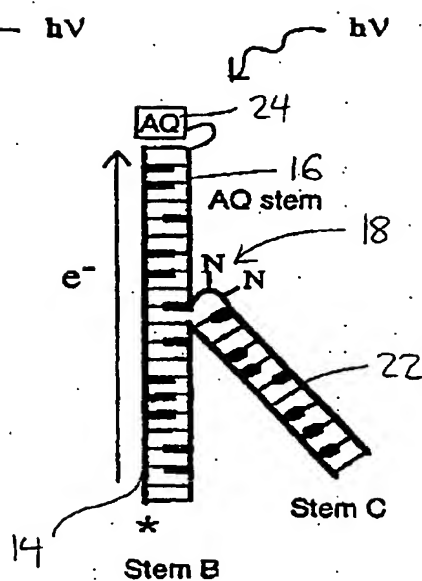
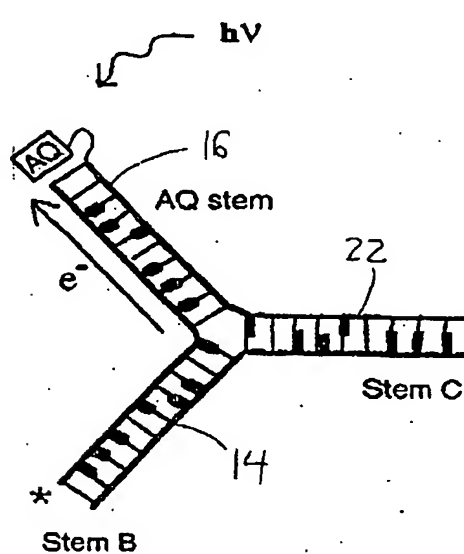


FIGURE 2(c)



Guanine bases are shown as dark stubs.

\* designates a 5'-end labeled strand, which can be analyzed in a sequencing gel for damage to specific guanines concomitant with electron donation.

In panel (II) electrons flow from Stem B to the AQ stem;  
whereas, in panel (III) electron flow is restricted to the AQ stem.

FIGURE 3(a)

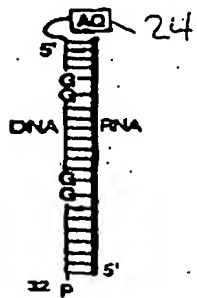


FIGURE 3(b)

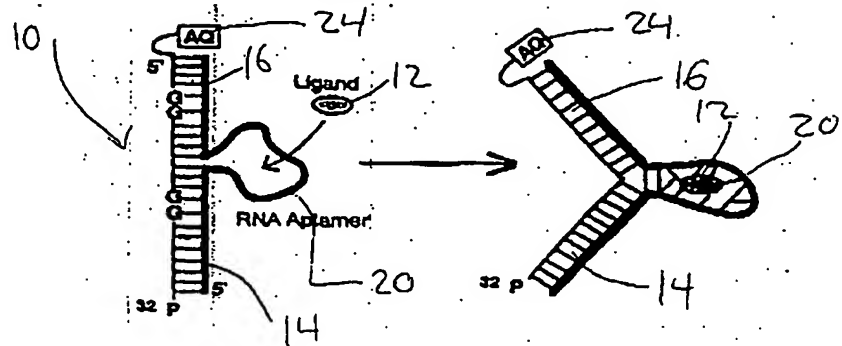


FIGURE 3(c)

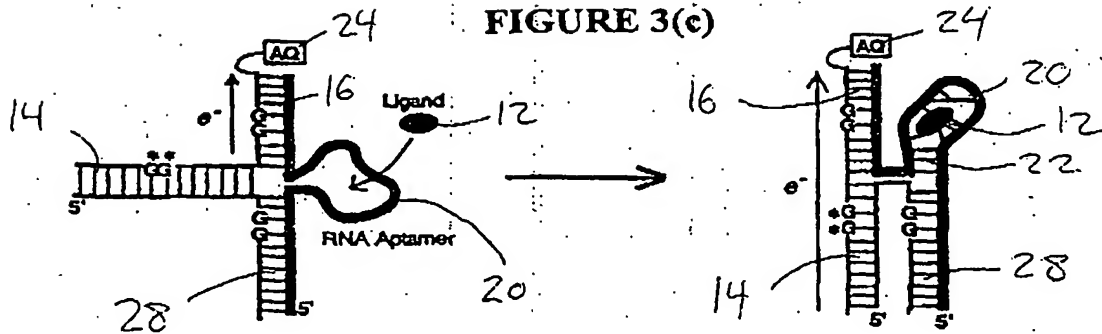
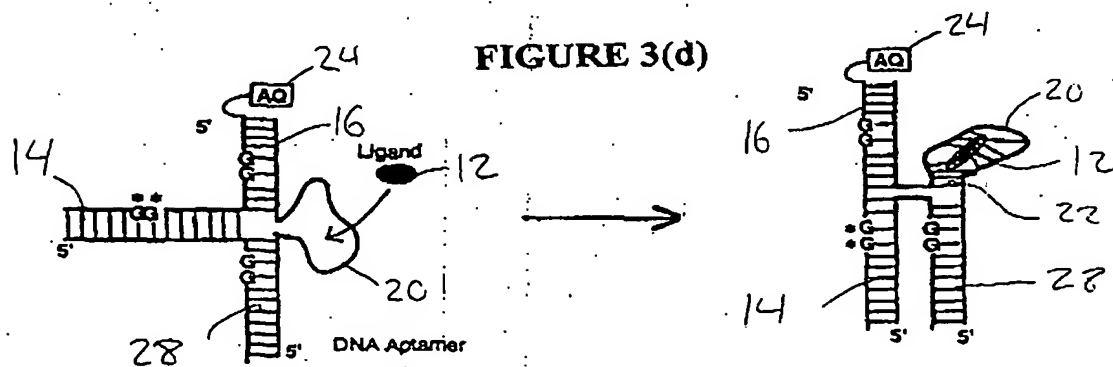


FIGURE 3(d)



In (c) and (d), asterisks indicate guanines through which electron conduction may be expected to change subject to ligand binding to the ligand receptor/ptamer.

FIGURE 4(a)

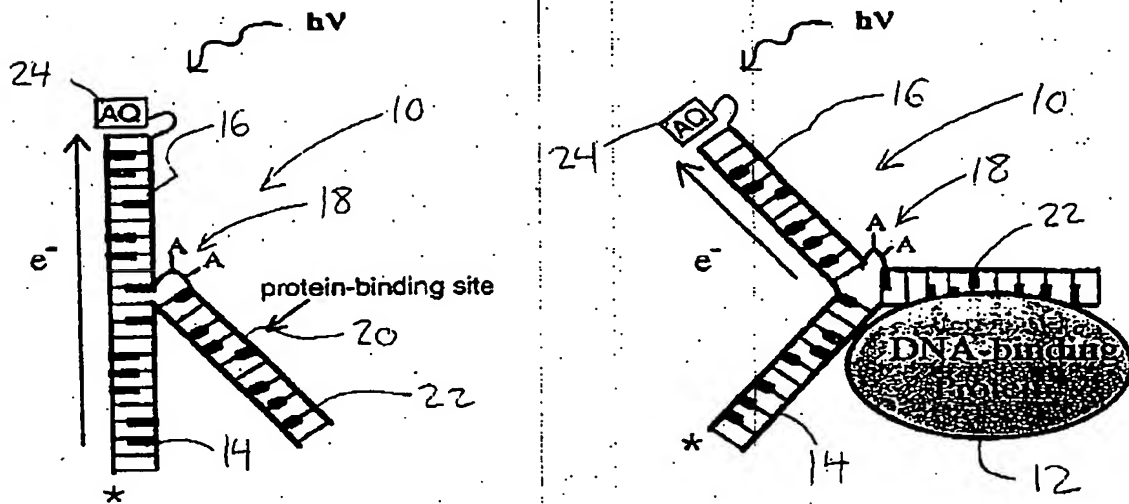


FIGURE 4(b)

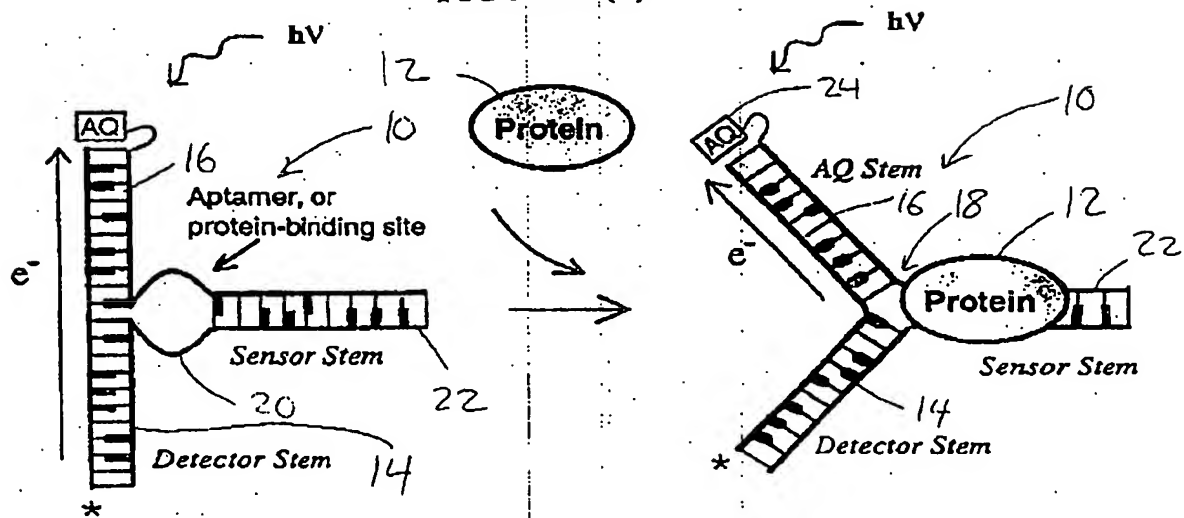
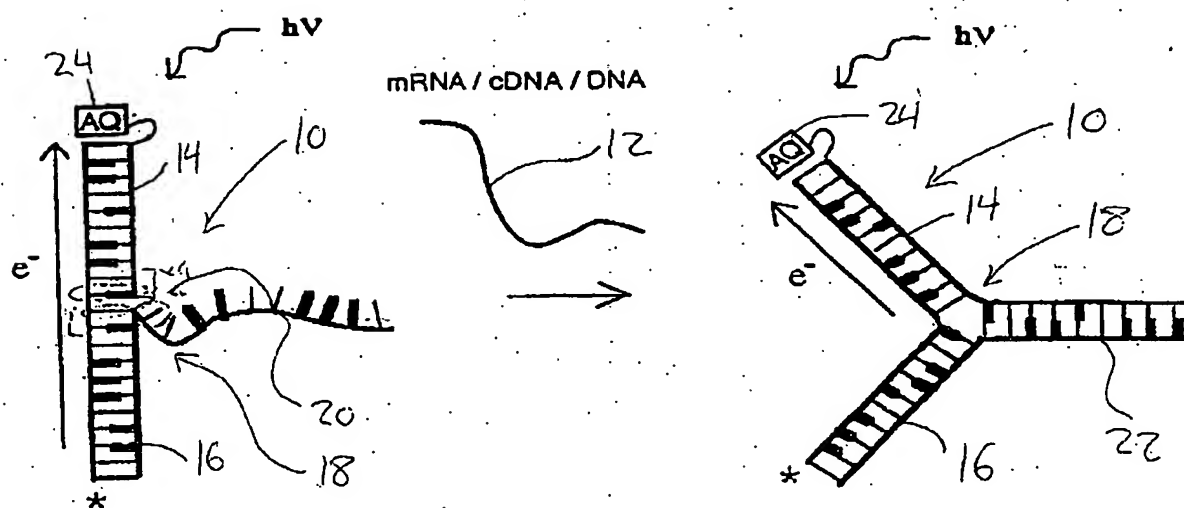


FIGURE 5



A sensor for detecting specific DNA or RNA oligonucleotides

FIGURE 6

'AND' Gate

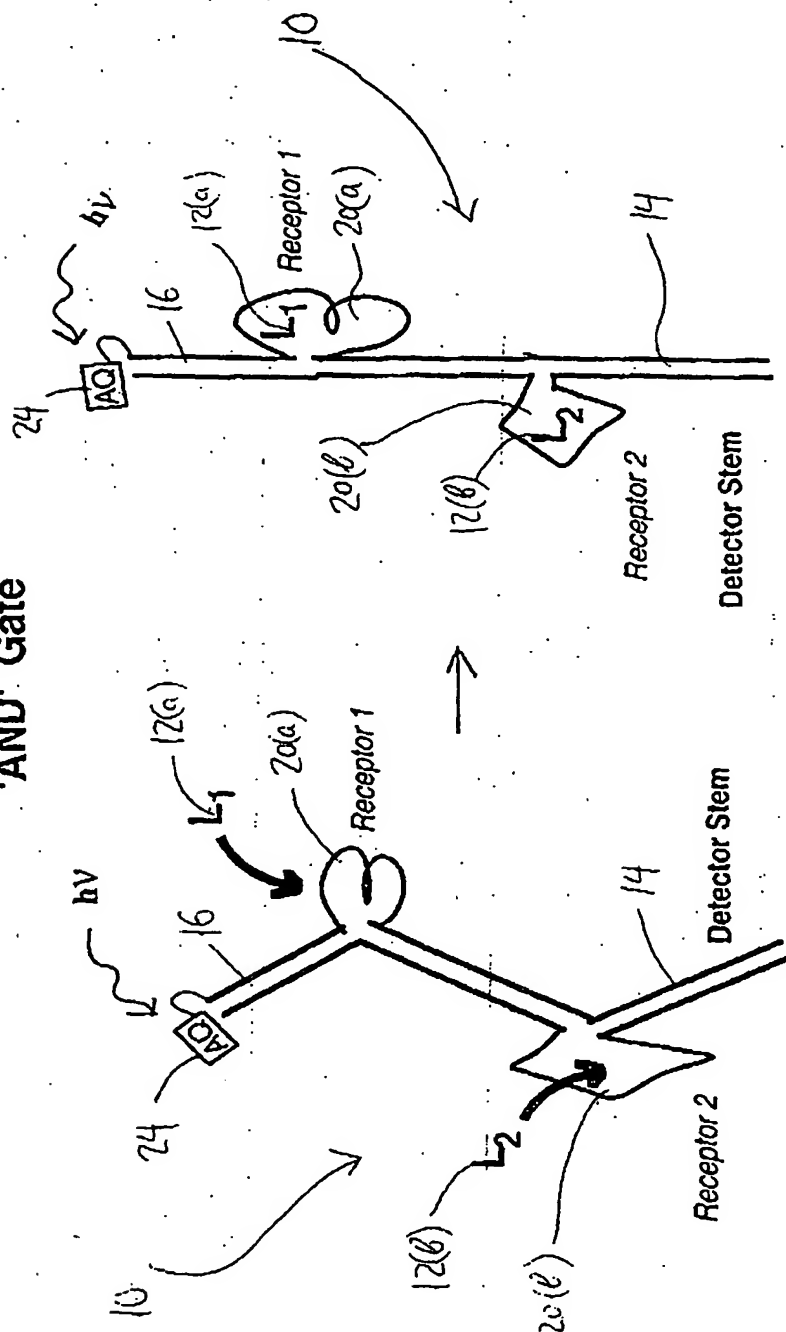


FIGURE 7

'NAND' Gate

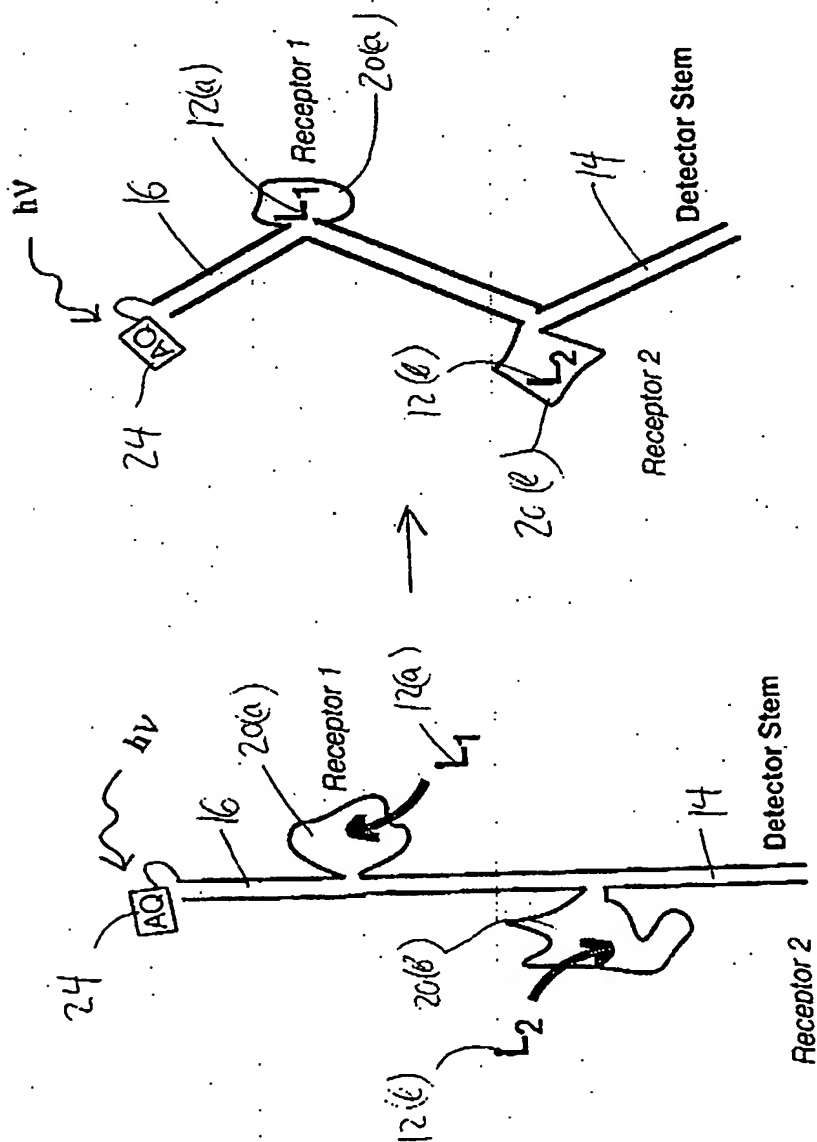


FIGURE 8

OFF

ON

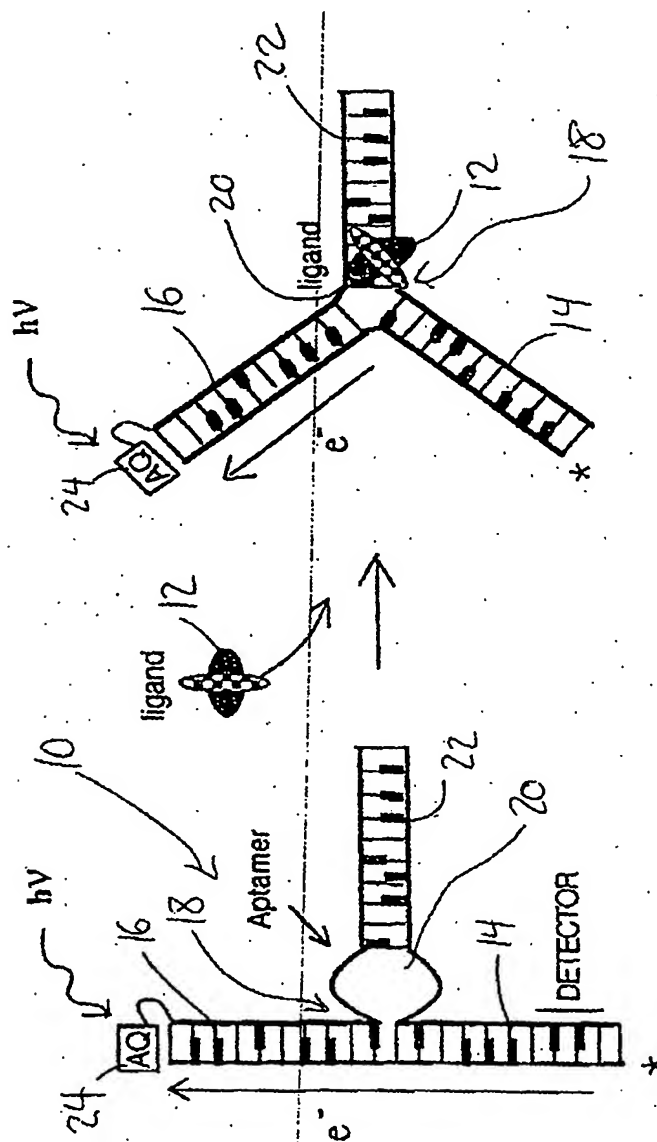




FIGURE 9

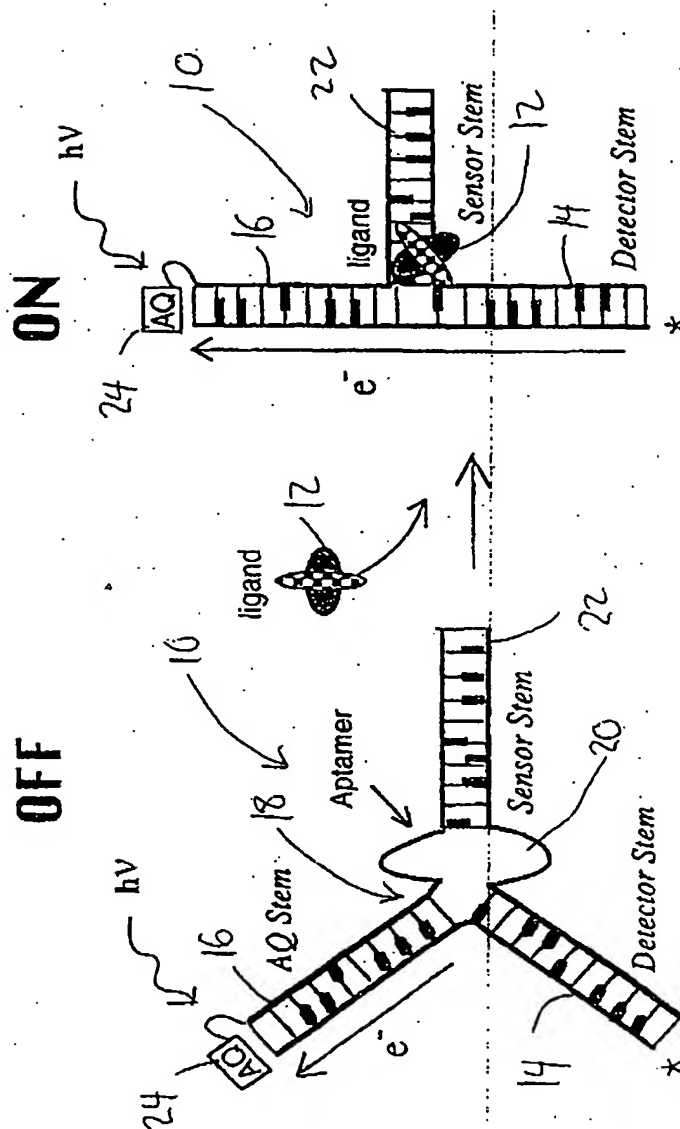


FIGURE 10

Direct *in vitro* Selection for Sensors of Proteins or Small Molecules

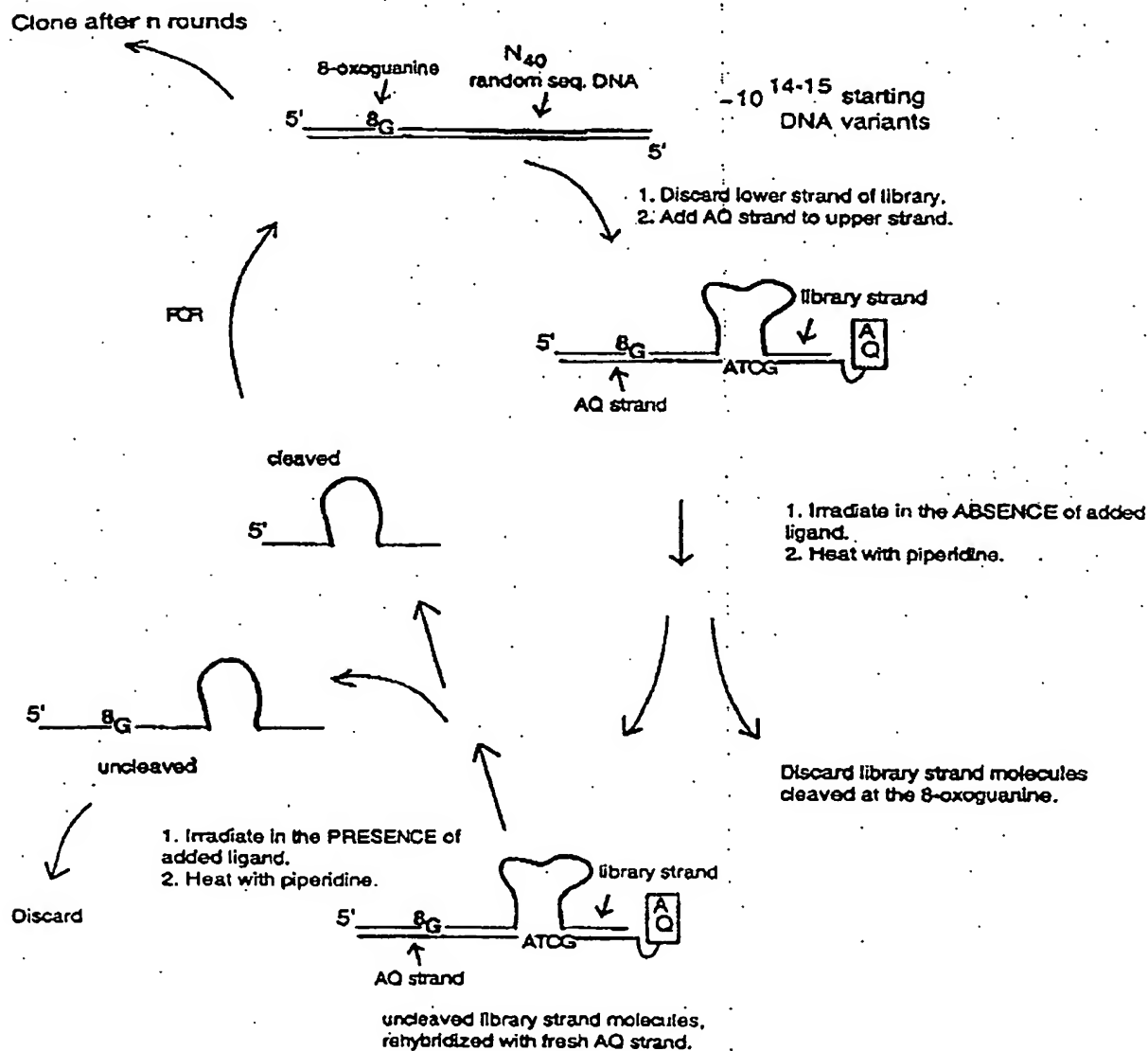
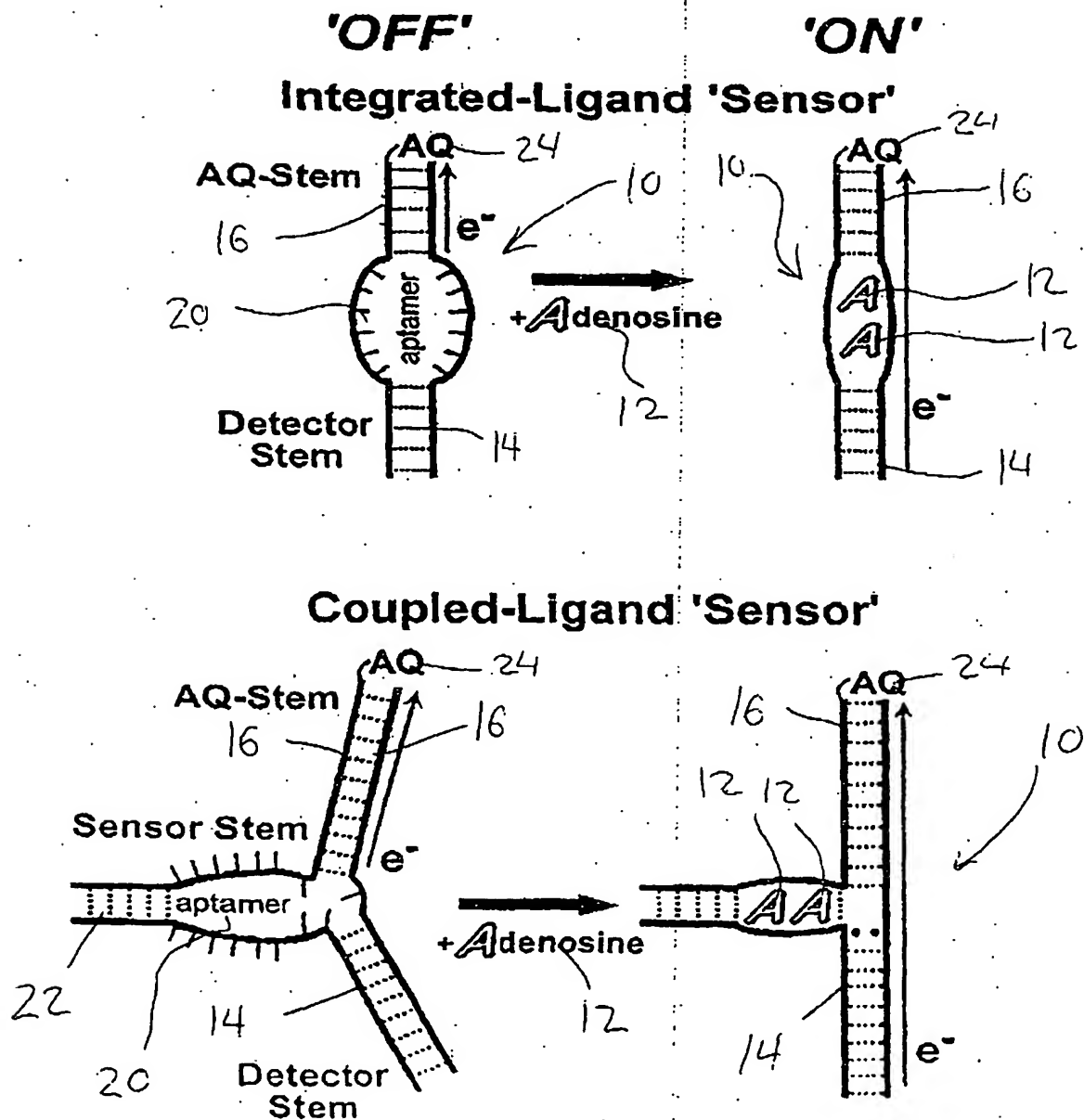


FIGURE 11



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FIGURE 12

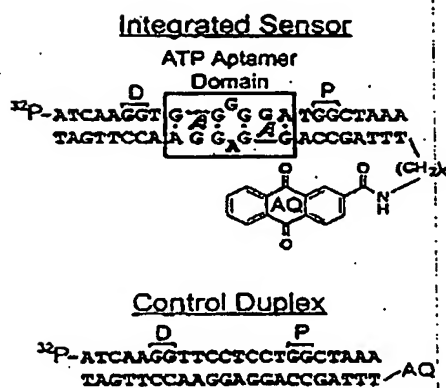


FIGURE 13(a)

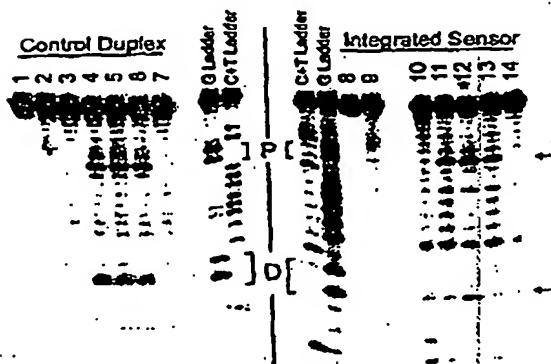


FIGURE 13(b)

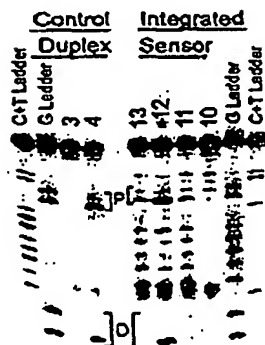
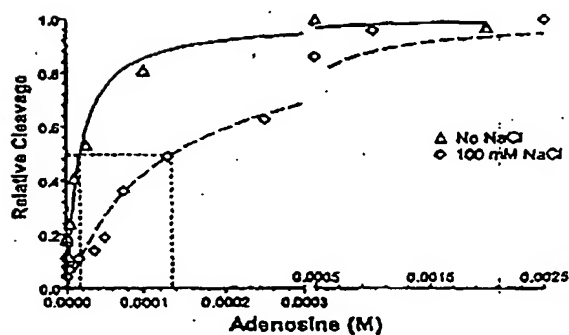


FIGURE 14



Title: DNA AND RNA CONFORMATIONAL SWITCHES AS SENSITIVE ELECTRONIC SENSORS OF ANALYTES

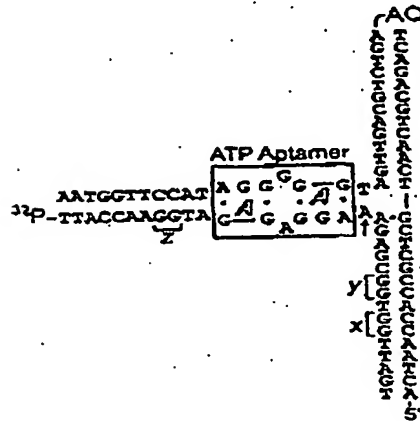
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10/507387

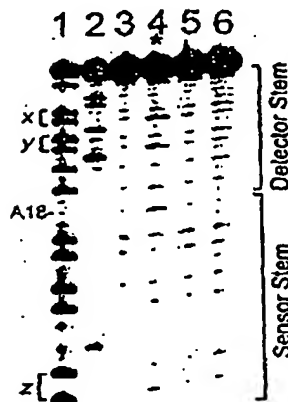
**WO 03/076653**

**PCT/CA03/00330**

**FIGURE 15(a)**



**FIGURE 15(b)**



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